Paul DeMott

List of Publications by Year
in descending order

228 papers	21,300 citations	8181 76 h-index	12946 131 g-index
317 all docs	317 docs citations	317 times ranked	8773 citing authors

#	Article	IF	Citations
1	Predicting global atmospheric ice nuclei distributions and their impacts on climate. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 11217-11222.	7.1	945
2	New Primary Ice-Nucleation Parameterizations in an Explicit Cloud Model. Journal of Applied Meteorology and Climatology, 1992, 31, 708-721.	1.7	698
3	African dust aerosols as atmospheric ice nuclei. Geophysical Research Letters, 2003, 30, .	4.0	659
4	Measurements of the concentration and composition of nuclei for cirrus formation. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 14655-14660.	7.1	505
5	Dust and Biological Aerosols from the Sahara and Asia Influence Precipitation in the Western U.S.. Science, 2013, 339, 1572-1578.	12.6	482
6	Improving our fundamental understanding of the role of aerosolâ˘cloud interactions in the climate system. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 5781-5790.	7.1	479
7	Bringing the ocean into the laboratory to probe the chemical complexity of sea spray aerosol. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 7550-7555.	7.1	439
8	In situ detection of biological particles in cloud ice-crystals. Nature Geoscience, 2009, 2, 398-401.	12.9	406
9	High concentrations of biological aerosol particles and ice nuclei during and after rain. Atmospheric Chemistry and Physics, 2013, 13, 6151-6164.	4.9	355
10	Microbiology and atmospheric processes: the role of biological particles in cloud physics. Biogeosciences, 2007, 4, 1059-1071.	3.3	345
11	A Particle-Surface-Area-Based Parameterization of Immersion Freezing on Desert Dust Particles. Journals of the Atmospheric Sciences, 2012, 69, 3077-3092.	1.7	338
12	Technical Note: A proposal for ice nucleation terminology. Atmospheric Chemistry and Physics, 2015, 15, 10263-10270.	4.9	338
13	Impacts of Nucleating Aerosol on Florida Storms. Part I: Mesoscale Simulations. Journals of the Atmospheric Sciences, 2006, 63, 1752-1775.	1.7	329
14	An Empirical Parameterization of Heterogeneous Ice Nucleation for Multiple Chemical Species of Aerosol. Journals of the Atmospheric Sciences, 2008, 65, 2757-2783.	1.7	325
15	Saharan dust storms and indirect aerosol effects on clouds: CRYSTAL-FACE results. Geophysical Research Letters, 2003, 30, .	4.0	323
16	Sea spray aerosol as a unique source of ice nucleating particles. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 5797-5803.	7.1	323
17	Integrating laboratory and field data to quantify the immersion freezing ice nucleation activity of mineral dust particles. Atmospheric Chemistry and Physics, 2015, 15, 393-409.	4.9	315
18	The Mixed-Phase Arctic Cloud Experiment. Bulletin of the American Meteorological Society, 2007, 88, 205-222.	3.3	283

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19	Ice nucleation by surrogates for atmospheric mineral dust and mineral dust/sulfate particles at cirrus temperatures. Atmospheric Chemistry and Physics, 2005, 5, 2617-2634.	4.9	265
20	The Effects of Low Molecular Weight Dicarboxylic Acids on Cloud Formation. Journal of Physical Chemistry A, 2001, 105, 11240-11248.	2.5	258
21	Cloud condensation nucleation activity of biomass burning aerosol. Journal of Geophysical Research, 2009, 114, .	3.3	213
22	Water activity and activation diameters from hygroscopicity data - Part I: Theory and application to inorganic salts. Atmospheric Chemistry and Physics, 2005, 5, 1357-1370.	4.9	207
23	Can Ice-Nucleating Aerosols Affect Arctic Seasonal Climate?. Bulletin of the American Meteorological Society, 2007, 88, 541-550.	3.3	202
24	A comprehensive laboratory study on the immersion freezing behavior of illite NX particles: a comparison of 17 ice nucleation measurement techniques. Atmospheric Chemistry and Physics, 2015, 15, 2489-2518.	4.9	200
25	Resurgence in Ice Nuclei Measurement Research. Bulletin of the American Meteorological Society, 2011, 92, 1623-1635.	3.3	199
26	Cloud droplet activation of secondary organic aerosol. Journal of Geophysical Research, 2007, 112, .	3.3	196
27	Water uptake of internally mixed particles containing ammonium sulfate and dicarboxylic acids. Atmospheric Environment, 2003, 37, 4243-4251.	4.1	190
28	Trace gas emissions from combustion of peat, crop residue, domestic biofuels, grasses, and other fuels: configuration and Fourier transform infrared (FTIR) component of the fourth Fire Lab at Missoula Experiment (FLAME-4). Atmospheric Chemistry and Physics, 2014, 14, 9727-9754.	4.9	188
29	Ice formation by black carbon particles. Geophysical Research Letters, 1999, 26, 2429-2432.	4.0	177
30	Irreversible loss of ice nucleation active sites in mineral dust particles caused by sulphuric acid condensation. Atmospheric Chemistry and Physics, 2010, 10, 11471-11487.	4.9	175
31	Saharan dust particles nucleate droplets in eastern Atlantic clouds. Geophysical Research Letters, 2009, 36, .	4.0	174
32	Microbial Control of Sea Spray Aerosol Composition: A Tale of Two Blooms. ACS Central Science, 2015, 1, 124-131.	11.3	172
33	The susceptibility of ice formation in upper tropospheric clouds to insoluble aerosol components. Journal of Geophysical Research, 1997, 102, 19575-19584.	3.3	169
34	Ice properties of singleâ€layer stratocumulus during the Mixedâ€Phase Arctic Cloud Experiment: 2. Model results. Journal of Geophysical Research, 2007, 112, .	3.3	165
35	Cloud condensation nuclei and ice nucleation activity of hydrophobic and hydrophilic soot particles. Physical Chemistry Chemical Physics, 2009, 11, 7906.	2.8	165
36	Measurements of heterogeneous ice nuclei in the western United States in springtime and their relation to aerosol characteristics. Journal of Geophysical Research, 2007, 112, .	3.3	159

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37	Hygroscopicity and cloud droplet activation of mineral dust aerosol. Geophysical Research Letters, 2009, 36, .	4.0	159
38	Single particle analyses of ice nucleating aerosols in the upper troposphere and lower stratosphere. Geophysical Research Letters, 1998, 25, 1391-1394.	4.0	156
39	Flight-based chemical characterization of biomass burning aerosols within two prescribed burn smoke plumes. Atmospheric Chemistry and Physics, 2011, 11, 12549-12565.	4.9	154
40	A Continuous-Flow Diffusion Chamber for Airborne Measurements of Ice Nuclei. Journal of Atmospheric and Oceanic Technology, 2001, 18, 725-741.	1.3	152
41	Insights into the role of soot aerosols in cirrus cloud formation. Atmospheric Chemistry and Physics, 2007, 7, 4203-4227.	4.9	144
42	Biological aerosol particles as a key determinant of ice nuclei populations in a forest ecosystem. Journal of Geophysical Research D: Atmospheres, 2013, 118, 10,100.	3.3	144
43	Contribution of feldspar and marine organic aerosols to global ice nucleating particle concentrations. Atmospheric Chemistry and Physics, 2017, 17, 3637-3658.	4.9	144
44	An Exploratory Study of Ice Nucleation by Soot Aerosols. Journal of Applied Meteorology and Climatology, 1990, 29, 1072-1079.	1.7	143
45	Parameterization and Impact of Ice initiation Processes Relevant to Numerical Model Simulations of Cirrus Clouds. Journals of the Atmospheric Sciences, 1994, 51, 77-90.	1.7	141
46	Airborne instruments to measure atmospheric aerosol particles, clouds and radiation: A cook's tour of mature and emerging technology. Atmospheric Research, 2011, 102, 10-29.	4.1	139
47	Chemical aging and the hydrophobic-to-hydrophilic conversion of carbonaceous aerosol. Geophysical Research Letters, 2006, 33, .	4.0	137
48	Sources of organic ice nucleating particles in soils. Atmospheric Chemistry and Physics, 2016, 16, 7195-7211.	4.9	137
49	Water uptake by particles containing humic materials and mixtures of humic materials with ammonium sulfate. Atmospheric Environment, 2004, 38, 1859-1868.	4.1	134
50	Ice Nucleation Efficiency of Hydroxylated Organic Surfaces Is Controlled by Their Structural Fluctuations and Mismatch to Ice. Journal of the American Chemical Society, 2017, 139, 3052-3064.	13.7	132
51	Measurements of ice nucleating aerosols during SUCCESS. Geophysical Research Letters, 1998, 25, 1383-1386.	4.0	130
52	Improvements to an Empirical Parameterization of Heterogeneous Ice Nucleation and Its Comparison with Observations. Journals of the Atmospheric Sciences, 2013, 70, 378-409.	1.7	127
53	Measurement of Ice Nucleation-Active Bacteria on Plants and in Precipitation by Quantitative PCR. Applied and Environmental Microbiology, 2014, 80, 1256-1267.	3.1	126
54	Ice nuclei emissions from biomass burning. Journal of Geophysical Research, 2009, 114, .	3.3	125

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55	Freezing Nucleation Rates of Dilute Solution Droplets Measured between âˆ’30Â° and âˆ’40Â°C in Laboratory Simulations of Natural Clouds. Journals of the Atmospheric Sciences, 1990, 47, 1056-1064.	1.7	124
56	Kaolinite particles as ice nuclei: learning from the use of different kaolinite samples and different coatings. Atmospheric Chemistry and Physics, 2014, 14, 5529-5546.	4.9	120
57	Organic matter matters for ice nuclei of agricultural soil origin. Atmospheric Chemistry and Physics, 2014, 14, 8521-8531.	4.9	117
58	Chapter 7. Secondary Ice Production - current state of the science and recommendations for the future. Meteorological Monographs, 0, , .	5.0	116
59	Airborne measurements of tropospheric ice-nucleating aerosol particles in the Arctic spring. Journal of Geophysical Research, 2001, 106, 15053-15063.	3.3	115
60	Ice nuclei characteristics from M-PACE and their relation to ice formation in clouds. Tellus, Series B: Chemical and Physical Meteorology, 2009, 61, 436-448.	1.6	114
61	Size-resolved measurements of ice-nucleating particles at six locations in North America and one in Europe. Atmospheric Chemistry and Physics, 2016, 16, 1637-1651.	4.9	113
62	Water activity and activation diameters from hygroscopicity data - Part II: Application to organic species. Atmospheric Chemistry and Physics, 2006, 6, 795-809.	4.9	111
63	The impact of rain on ice nuclei populations at a forested site in Colorado. Geophysical Research Letters, 2013, 40, 227-231.	4.0	110
64	Observations of Ice Nucleating Particles Over Southern Ocean Waters. Geophysical Research Letters, 2018, 45, 11,989.	4.0	110
65	An overview of aircraft observations from the Pacific Dust Experiment campaign. Journal of Geophysical Research, 2009, 114, .	3.3	109
66	Quantitative descriptions of ice formation mechanisms of silver iodide-type aerosols. Atmospheric Research, 1995, 38, 63-99.	4.1	103
67	Observations of Clouds, Aerosols, Precipitation, and Surface Radiation over the Southern Ocean: An Overview of CAPRICORN, MARCUS, MICRE, and SOCRATES. Bulletin of the American Meteorological Society, 2021, 102, E894-E928.	3.3	103
68	Chemical processing does not always impair heterogeneous ice nucleation of mineral dust particles. Geophysical Research Letters, 2010, 37, .	4.0	102
69	Aerosol impacts on California winter clouds and precipitation during CalWater 2011: local pollution versus long-range transported dust. Atmospheric Chemistry and Physics, 2014, 14, 81-101.	4.9	101
70	Glacially sourced dust as a potentially significant source of ice nucleating particles. Nature Geoscience, 2019, 12, 253-258.	12.9	101
71	Laboratory investigations of the impact of mineral dust aerosol on cold cloud formation. Atmospheric Chemistry and Physics, 2010, 10, 11955-11968.	4.9	98
72	Marine and Terrestrial Organic Iceâ€Nucleating Particles in Pristine Marine to Continentally Influenced Northeast Atlantic Air Masses. Journal of Geophysical Research D: Atmospheres, 2018, 123, 6196-6212.	3.3	98

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73	Single-parameter estimates of aerosol water content. Environmental Research Letters, 2008, 3, 035002.	5.2	97
74	New Directions: Need for defining the numbers and sources of biological aerosols acting as ice nuclei. Atmospheric Environment, 2010, 44, 1944-1945.	4.1	96
75	Ice Initiation by Aerosol Particles: Measured and Predicted Ice Nuclei Concentrations versus Measured Ice Crystal Concentrations in an Orographic Wave Cloud. Journals of the Atmospheric Sciences, 2010, 67, 2417-2436.	1.7	96
76	A Dynamic Link between Ice Nucleating Particles Released in Nascent Sea Spray Aerosol and Oceanic Biological Activity during Two Mesocosm Experiments. Journals of the Atmospheric Sciences, 2017, 74, 151-166.	1.7	93
77	Cirrus Parcel Model Comparison Project. Phase 1: The Critical Components to Simulate Cirrus Initiation Explicitly. Journals of the Atmospheric Sciences, 2002, 59, 2305-2329.	1.7	91
78	The role of heterogeneous freezing nucleation in upper tropospheric clouds: Inferences from SUCCESS. Geophysical Research Letters, 1998, 25, 1387-1390.	4.0	89
79	CalWater Field Studies Designed to Quantify the Roles of Atmospheric Rivers and Aerosols in Modulating U.S. West Coast Precipitation in a Changing Climate. Bulletin of the American Meteorological Society, 2016, 97, 1209-1228.	3.3	87
80	Aerosol single scattering albedo dependence on biomass combustion efficiency: Laboratory and field studies. Geophysical Research Letters, 2014, 41, 742-748.	4.0	85
81	Observations of organic species and atmospheric ice formation. Geophysical Research Letters, 2004, 31, n/a-n/a.	4.0	84
82	Water interaction with hydrophobic and hydrophilic soot particles. Physical Chemistry Chemical Physics, 2008, 10, 2332.	2.8	83
83	A comparison of heterogeneous ice nucleation parameterizations using a parcel model framework. Journal of Geophysical Research, 2009, 114, .	3.3	83
84	The Fifth International Workshop on Ice Nucleation phase 2 (FIN-02): laboratory intercomparison of ice nucleation measurements. Atmospheric Measurement Techniques, 2018, 11, 6231-6257.	3.1	82
85	Bioaerosol field measurements: Challenges and perspectives in outdoor studies. Aerosol Science and Technology, 2020, 54, 520-546.	3.1	81
86	Ice Formation by Sulfate and Sulfuric Acid Aerosol Particles under Upper-Tropospheric Conditions. Journals of the Atmospheric Sciences, 2000, 57, 3752-3766.	1.7	79
87	Biogenic ice nuclei in boundary layer air over two U.S. High Plains agricultural regions. Journal of Geophysical Research, 2012, 117, .	3.3	79
88	On Measuring the Critical Diameter of Cloud Condensation Nuclei Using Mobility Selected Aerosol. Aerosol Science and Technology, 2007, 41, 907-913.	3.1	74
89	The chemical fractionation of atmospheric aerosol as a result of snow crystal formation and growth. Journal of Atmospheric Chemistry, 1988, 7, 213-239.	3.2	73
90	Characteristics of atmospheric ice nucleating particles associated with biomass burning in the US: Prescribed burns and wildfires. Journal of Geophysical Research D: Atmospheres, 2014, 119, 10458-10470.	3.3	73

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91	Comparative measurements of ambient atmospheric concentrations of ice nucleating particles using multiple immersion freezing methods and a continuous flow diffusion chamber. Atmospheric Chemistry and Physics, 2017, 17, 11227-11245.	4.9	73
92	Results from the University of Toronto continuous flow diffusion chamber at ICIS 2007: instrument intercomparison and ice onsets for different aerosol types. Atmospheric Chemistry and Physics, 2011, 11, 31-41.	4.9	72
93	Effects of cloud condensation nuclei and ice nucleating particles on precipitation processes and supercooled liquid in mixed-phase orographic clouds. Atmospheric Chemistry and Physics, 2017, 17, 1017-1035.	4.9	71
94	Experimental study of the role of physicochemical surface processing on the IN ability of mineral dust particles. Atmospheric Chemistry and Physics, 2011, 11, 11131-11144.	4.9	70
95	Potential impact of Owens (dry) Lake dust on warm and cold cloud formation. Journal of Geophysical Research, 2007, 112, .	3.3	68
96	Ice nucleation behavior of biomass combustion particles at cirrus temperatures. Journal of Geophysical Research, 2009, 114, .	3.3	68
97	A Mesocosm Double Feature: Insights into the Chemical Makeup of Marine Ice Nucleating Particles. Journals of the Atmospheric Sciences, 2018, 75, 2405-2423.	1.7	67
98	Seasonal Changes of Airborne Bacterial Communities Over Tokyo and Influence of Local Meteorology. Frontiers in Microbiology, 2019, 10, 1572.	3.5	67
99	An annual cycle of sizeâ€resolved aerosol hygroscopicity at a forested site in Colorado. Journal of Geophysical Research, 2012, 117, .	3.3	65
100	Contrail Microphysics. Bulletin of the American Meteorological Society, 2010, 91, 465-472.	3.3	62
101	Size-resolved aerosol composition and its link to hygroscopicity at a forested site in Colorado. Atmospheric Chemistry and Physics, 2014, 14, 2657-2667.	4.9	62
102	Overview of the Manitou Experimental Forest Observatory: site description and selected science results from 2008 to 2013. Atmospheric Chemistry and Physics, 2014, 14, 6345-6367.	4.9	62
103	Ice in Clouds Experimentâ€"Layer Clouds. Part II: Testing Characteristics of Heterogeneous Ice Formation in Lee Wave Clouds. Journals of the Atmospheric Sciences, 2012, 69, 1066-1079.	1.7	61
104	Surface modification of mineral dust particles by sulphuric acid processing: implications for ice nucleation abilities. Atmospheric Chemistry and Physics, 2011, 11, 7839-7858.	4.9	60
105	A Method for Single Particle Mass Spectrometry of Ice Nuclei. Aerosol Science and Technology, 2003, 37, 460-470.	3.1	59
106	Particle analysis by laser mass spectrometry (PALMS) studies of ice nuclei and other low number density particles. International Journal of Mass Spectrometry, 2006, 258, 21-29.	1.5	59
107	Classifying atmospheric ice crystals by spatial light scattering. Optics Letters, 2008, 33, 1545.	3.3	58
108	Ice Nucleating Particles Carried From Below a Phytoplankton Bloom to the Arctic Atmosphere. Geophysical Research Letters, 2019, 46, 8572-8581.	4.0	58

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109	Observation of playa salts as nuclei in orographic wave clouds. Journal of Geophysical Research, 2010, 115, .	3.3	55
110	The Lakeâ€"Induced Convection Experiment and the Snowband Dynamics Project. Bulletin of the American Meteorological Society, 2000, 81, 519-542.	3.3	54
111	Relationships of Biomass-Burning Aerosols to Ice in Orographic Wave Clouds. Journals of the Atmospheric Sciences, 2010, 67, 2437-2450.	1.7	54
112	Emissions of Trace Organic Gases From Western U.S. Wildfires Based on WEâ€CAN Aircraft Measurements. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2020JD033838.	3.3	54
113	Agricultural harvesting emissions of ice-nucleating particles. Atmospheric Chemistry and Physics, 2018, 18, 13755-13771.	4.9	53
114	Anvil glaciation in a deep cumulus updraught over Florida simulated with the Explicit Microphysics Model. I: Impact of various nucleation processes. Quarterly Journal of the Royal Meteorological Society, 2005, 131, 2019-2046.	2.7	51
115	The micro-orifice uniform deposit impactorâ€"droplet freezing technique (MOUDI-DFT) for measuring concentrations of ice nucleating particles as a function of size: improvements and initial validation. Atmospheric Measurement Techniques, 2015, 8, 2449-2462.	3.1	50
116	Abundance of fluorescent biological aerosol particles at temperatures conducive to the formation of mixed-phase and cirrus clouds. Atmospheric Chemistry and Physics, 2016, 16, 8205-8225.	4.9	50
117	An Application of Chemical Kinetic Theory and Methodology to Characterize the Ice Nucleating Properties of Aerosols Used for Weather Modification. Journal of Climate and Applied Meteorology, 1983, 22, 1190-1203.	1.0	49
118	Cloud droplet activation of polymerized organic aerosol. Tellus, Series B: Chemical and Physical Meteorology, 2006, 58, 196-205.	1.6	49
119	Biomass burning as a potential source for atmospheric ice nuclei: Western wildfires and prescribed burns. Geophysical Research Letters, 2012, 39, .	4.0	49
120	In Situ Chemical Characterization of Aged Biomass-Burning Aerosols Impacting Cold Wave Clouds. Journals of the Atmospheric Sciences, 2010, 67, 2451-2468.	1.7	48
121	A comprehensive characterization of ice nucleation by three different types of cellulose particles immersed in water. Atmospheric Chemistry and Physics, 2019, 19, 4823-4849.	4.9	48
122	Airborne bacteria confirm the pristine nature of the Southern Ocean boundary layer. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 13275-13282.	7.1	48
123	Impacts of chemical reactivity on ice nucleation of kaolinite particles: A case study of levoglucosan and sulfuric acid. Geophysical Research Letters, 2012, 39, .	4.0	46
124	Iceâ€nucleating particle emissions from photochemically aged diesel and biodiesel exhaust. Geophysical Research Letters, 2016, 43, 5524-5531.	4.0	45
125	A biogenic secondary organic aerosol source of cirrus ice nucleating particles. Nature Communications, 2020, 11, 4834.	12.8	45
126	Heterogeneous ice nucleation measurements of secondary organic aerosol generated from ozonolysis of alkenes. Geophysical Research Letters, 2009, 36, .	4.0	43

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127	A Multisensor Investigation of Rime Splintering in Tropical Maritime Cumuli. Journals of the Atmospheric Sciences, 2016, 73, 2547-2564.	1.7	43
128	The contribution of black carbon to global ice nucleating particle concentrations relevant to mixed-phase clouds. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 22705-22711.	7.1	43
129	Iceâ€nucleating particle emissions from biomass combustion and the potential importance of soot aerosol. Journal of Geophysical Research D: Atmospheres, 2016, 121, 5888-5903.	3.3	42
130	Heterogeneous ice nucleation properties of natural desert dust particles coated with a surrogate of secondary organic aerosol. Atmospheric Chemistry and Physics, 2019, 19, 5091-5110.	4.9	40
131	Ship-based measurements of ice nuclei concentrations over the Arctic, Atlantic, Pacific and Southern oceans. Atmospheric Chemistry and Physics, 2020, 20, 15191-15206.	4.9	40
132	Ice nucleation by particles containing long-chain fatty acids of relevance to freezing by sea spray aerosols. Environmental Sciences: Processes and Impacts, 2018, 20, 1559-1569.	3.5	37
133	Progress and Challenges in Quantifying Wildfire Smoke Emissions, Their Properties, Transport, and Atmospheric Impacts. Journal of Geophysical Research D: Atmospheres, 2019, 124, 13005-13025.	3.3	37
134	Laboratory Studies of Cirrus Cloud Processes. , 2002, , .		37
135	Cloud Activation Characteristics of Airborne<i>Erwinia carotovora</i>Cells. Journal of Applied Meteorology and Climatology, 1998, 37, 1293-1300.	1.7	36
136	Numerical Representations of Marine Iceâ€Nucleating Particles in Remote Marine Environments Evaluated Against Observations. Geophysical Research Letters, 2019, 46, 7838-7847.	4.0	36
137	Examinations of ice formation processes in Florida cumuli using ice nuclei measurements of anvil ice crystal particle residues. Journal of Geophysical Research, 2007, 112, .	3.3	34
138	The Microphysical Roles of Lower-Tropospheric versus Midtropospheric Aerosol Particles in Mature-Stage MCS Precipitation. Journals of the Atmospheric Sciences, 2017, 74, 3657-3678.	1.7	34
139	Cloudâ€Nucleating Particles Over the Southern Ocean in a Changing Climate. Earth's Future, 2021, 9, e2020EF001673.	6.3	33
140	Thawing permafrost: an overlooked source of seeds for Arctic cloud formation. Environmental Research Letters, 2020, 15, 084022.	5.2	33
141	Chemical properties of insoluble precipitation residue particles. Journal of Aerosol Science, 2014, 76, 13-27.	3.8	31
142	Measurements of Ice Nucleating Particles in Beijing, China. Journal of Geophysical Research D: Atmospheres, 2019, 124, 8065-8075.	3.3	31
143	The common occurrence of highly supercooled drizzle and rain near the coastal regions of the western United States. Journal of Geophysical Research D: Atmospheres, 2013, 118, 9819-9833.	3.3	30
144	The Labile Nature of Ice Nucleation by Arizona Test Dust. ACS Earth and Space Chemistry, 2020, 4, 133-141.	2.7	30

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145	Utilizing a Storm-Generating Hotspot to Study Convective Cloud Transitions: The CACTI Experiment. Bulletin of the American Meteorological Society, 2021, 102, E1597-E1620.	3.3	30
146	Deliquescence-controlled activation of organic aerosols. Geophysical Research Letters, 2006, 33, .	4.0	29
147	Organic Enrichment, Physical Phase State, and Surface Tension Depression of Nascent Coreâ€“Shell Sea Spray Aerosols during Two Phytoplankton Blooms. ACS Earth and Space Chemistry, 2020, 4, 650-660.	2.7	29
148	Importance of Supermicron Ice Nucleating Particles in Nascent Sea Spray. Geophysical Research Letters, 2021, 48, e2020GL089633.	4.0	29
149	Iceâ€Nucleating Particles That Impact Clouds and Climate: Observational and Modeling Research Needs. Reviews of Geophysics, 2022, 60, .	23.0	29
150	Nucleation in synoptically forced cirrostratus. Journal of Geophysical Research, 2005, 110, .	3.3	28
151	Rapidly evolving ultrafine and fine mode biomass smoke physical properties: Comparing laboratory and field results. Journal of Geophysical Research D: Atmospheres, 2016, 121, 5750-5768.	3.3	27
152	Aerosol effects on the anvil characteristics of mesoscale convective systems. Journal of Geophysical Research D: Atmospheres, 2016, 121, 10,880.	3.3	26
153	Background Freeâ€Tropospheric Ice Nucleating Particle Concentrations at Mixedâ€Phase Cloud Conditions. Journal of Geophysical Research D: Atmospheres, 2018, 123, 10,506.	3.3	24
154	Observations of Ice Nucleating Particles in the Free Troposphere From Western US Wildfires. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2020JD033752.	3.3	24
155	HYDROMETEOROLOGICAL SIGNIFICANCE OF RIME ICE DEPOSITS IN THE COLORADO ROCKIES. Journal of the American Water Resources Association, 1983, 19, 619-624.	2.4	22
156	A Comparison of Seeded and Nonseeded Orographic Cloud Simulations with an Explicit Cloud Model. Journal of Applied Meteorology and Climatology, 1995, 34, 834-846.	1.7	22
157	Design and Characterization of a Fluidized Bed Aerosol Generator: A Source for Dry, Submicrometer Aerosol. Aerosol Science and Technology, 2000, 32, 465-481.	3.1	22
158	Isolating and identifying atmospheric ice-nucleating aerosols: a new technique. Atmospheric Research, 1998, 46, 263-278.	4.1	21
159	Measurements of wave-cloud microphysical properties with two new aircraft probes. Geophysical Research Letters, 1998, 25, 1117-1120.	4.0	21
160	Manchester Ice Nucleus Counter (MINC) measurements from the 2007 International workshop on Comparing Ice nucleation Measuring Systems (ICIS-2007). Atmospheric Chemistry and Physics, 2011, 11, 53-65.	4.9	21
161	Direct Online Mass Spectrometry Measurements of Ice Nucleating Particles at a California Coastal Site. Journal of Geophysical Research D: Atmospheres, 2019, 124, 12157-12172.	3.3	21
162	Transport of pollution to a remote coastal site during gap flow from California's interior: impacts on aerosol composition, clouds, and radiative balance. Atmospheric Chemistry and Physics, 2017, 17, 1491-1509.	4.9	20

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163	Automation and heat transfer characterization of immersion mode spectroscopy for analysis of ice nucleating particles. Atmospheric Measurement Techniques, 2017, 10, 2613-2626.	3.1	20
164	Challenging and Improving the Simulation of Midâ€Level Mixedâ€Phase Clouds Over the Highâ€Latitude Southern Ocean. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2020JD033490.	3.3	20
165	Aerosolâ€"Ice Formation Closure: A Southern Great Plains Field Campaign. Bulletin of the American Meteorological Society, 2021, 102, E1952-E1971.	3.3	20
166	Correction to â€œAfrican dust aerosols as atmospheric ice nucleiâ€. Geophysical Research Letters, 2009, 36, .	4.0	19
167	Observations of ice nuclei and heterogeneous freezing in a Western Pacific extratropical storm. Atmospheric Chemistry and Physics, 2011, 11, 6229-6243.	4.9	19
168	Annual cycle observations of aerosols capable of ice formation in central Arctic clouds. Nature Communications, 2022, 13, .	12.8	19
169	Abundance of Biological Ice Nucleating Particles in the Mississippi and Its Major Tributaries. Atmosphere, 2018, 9, 307.	2.3	17
170	Characteristics of Ice Nucleating Particles in and Around California Winter Storms. Journal of Geophysical Research D: Atmospheres, 2019, 124, 11530-11551.	3.3	17
171	High ice concentration observed in tropical maritime stratiform mixed-phase clouds with top temperatures warmer than â[^]'8â€¯Â°C. Atmospheric Research, 2020, 233, 104719.	4.1	17
172	Ejection of Dust From the Ocean as a Potential Source of Marine Ice Nucleating Particles. Journal of Geophysical Research D: Atmospheres, 2020, 125, e2020JD033073.	3.3	17
173	The COMBLE Campaign: A Study of Marine Boundary Layer Clouds in Arctic Cold-Air Outbreaks. Bulletin of the American Meteorological Society, 2022, 103, E1371-E1389.	3.3	17
174	Southern Ocean cloud and aerosol data: a compilation of measurements from the 2018 Southern Ocean Ross Sea Marine Ecosystems and Environment voyage. Earth System Science Data, 2021, 13, 3115-3153.	9.9	16
175	Best practices for precipitation sample storage for offline studies of ice nucleation in marine and coastal environments. Atmospheric Measurement Techniques, 2020, 13, 6473-6486.	3.1	16
176	Observations of ice nucleation by ambient aerosol in the homogeneous freezing regime. Geophysical Research Letters, 2010, 37, .	4.0	15
177	Relating Structure and Ice Nucleation of Mixed Surfactant Systems Relevant to Sea Spray Aerosol. Journal of Physical Chemistry A, 2020, 124, 8806-8821.	2.5	15
178	Studies on the Competition Between Homogeneous and Heterogeneous Ice Nucleation in Cirrus Formation. Journal of Geophysical Research D: Atmospheres, 2022, 127, .	3.3	15
179	A New Method to Determine the Number Concentrations of Refractory Black Carbon Ice Nucleating Particles. Aerosol Science and Technology, 2014, 48, 1264-1275.	3.1	14
180	Structure of an Atmospheric River Over Australia and the Southern Ocean: II. Microphysical Evolution. Journal of Geophysical Research D: Atmospheres, 2020, 125, e2020JD032514.	3.3	14

#	Article	IF	Citations
181	Pragmatic protocols for working cleanly when measuring ice nucleating particles. Atmospheric Research, 2021, 250, 105419.	4.1	13
182	Organic composition of three different size ranges of aerosol particles over the Southern Ocean. Aerosol Science and Technology, 2021, 55, 268-288.	3.1	13
183	Biomass Burning Smoke and Its Influence on Clouds Over the Western U. S.. Geophysical Research Letters, 2021, 48, e2021GL094224.	4.0	13
184	Visualization of the seasonal shift of a variety of airborne pollens in western Tokyo. Science of the Total Environment, 2021, 788, 147623.	8.0	13
185	Ice Nucleating Particle Connections to Regional Argentinian Land Surface Emissions and Weather During the Cloud, Aerosol, and Complex Terrain Interactions Experiment. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2021JD035186.	3.3	13
186	Ice Nucleating Activity and Residual Particle Morphology of Bulk Seawater and Sea Surface Microlayer. ACS Earth and Space Chemistry, 2021, 5, 1916-1928.	2.7	12
187	Concerning primary ice nuclei concentrations and water supersaturations in the atmosphere. Atmospheric Research, 1994, 33, 151-168.	4.1	11
188	The Sea Spray Chemistry and Particle Evolution study (SeaSCAPE): overview and experimental methods. Environmental Sciences: Processes and Impacts, 2022, 24, 290-315.	3.5	11
189	Experimental Studies of Nucleation by Dry Ice. Journal of Applied Meteorology, 1982, 21, 1567-1570.	1.1	9
190	Evaluating the potential for Haloarchaea to serve as ice nucleating particles. Biogeosciences, 2021, 18, 3751-3762.	3.3	9
191	Exposure to Particulate Matter and Estimation of Volatile Organic Compounds across Wildland Firefighter Job Tasks. Environmental Science & Technology, 2021, 55, 11795-11804.	10.0	9
192	Observations and Modeling of Rime Splintering in Southern Ocean Cumuli. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2021JD035479.	3.3	9
193	A numerical framework for simulating the atmospheric variability of supermicron marine biogenic ice nucleating particles. Atmospheric Chemistry and Physics, 2022, 22, 847-859.	4.9	9
194	Initiation of ice: comparison of numerical model results with observations of ice development in a cumulus cloud. Atmospheric Research, 1994, 32, 13-30.	4.1	8
195	Is Ice Formation by Sea Spray Particles at Cirrus Temperatures Controlled by Crystalline Salts?. ACS Earth and Space Chemistry, 2021, 5, 2196-2211.	2.7	8
196	Development of Heterogeneous Ice Nucleation Rate Coefficient Parameterizations From Ambient Measurements. Geophysical Research Letters, 2021, 48, e2021GL095359.	4.0	8
197	Using depolarization to quantify ice nucleating particle concentrations: a new method. Atmospheric Measurement Techniques, 2017, 10, 4639-4657.	3.1	7
198	Machine Learning Uncovers Aerosol Size Information From Chemistry and Meteorology to Quantify Potential Cloudâ€Forming Particles. Geophysical Research Letters, 2021, 48, .	4.0	7

#	Article	IF	Citations
199	Quantification of online removal of refractory black carbon using laser-induced incandescence in the single particle soot photometer. Aerosol Science and Technology, 2016, 50, 679-692.	3.1	6
200	Cultivable halotolerant ice-nucleating bacteria and fungi in coastal precipitation. Atmospheric Chemistry and Physics, 2021, 21, 9031-9045.	4.9	6
201	Progress and Issues in Quantifying Ice Nucleation Involving Atmospheric Aerosols. , 2007, , 405-417.		6
202	Discrimination between individual dust and bioparticles using aerosol time-of-flight mass spectrometry. Aerosol Science and Technology, 2022, 56, 592-608.	3.1	6
203	Advances in Laboratory Cloud Physics 1987â€“1990. Reviews of Geophysics, 1991, 29, 80-87.	23.0	5
204	Use of the Single Particle Soot Photometer (SP2) as a pre-filter for ice nucleation measurements: effect of particle mixing state and determination of SP2 conditions to fully vaporize refractory black carbon. Atmospheric Measurement Techniques, 2018, 11, 3007-3020.	3.1	5
205	Empirical formulation for multiple groups of primary biological ice nucleating particles from field observations over Amazonia. Journals of the Atmospheric Sciences, 2021, , .	1.7	5
206	Ice in Southern Ocean Clouds With Cloud Top Temperatures Exceeding âˆ'5Â°C. Journal of Geophysical Research D: Atmospheres, 2021, 126, e2021JD034574.	3.3	5
207	A new method for operating a continuous-flow diffusion chamber to investigate immersion freezing: assessment and performance study. Atmospheric Measurement Techniques, 2020, 13, 6631-6643.	3.1	5
208	Corrigendum to "Experimental study of the role of physicochemical surface processing on the IN ability of mineral dust particles" published in Atmos. Chem. Phys., 11, 11131â€“11144, 2011. Atmospheric Chemistry and Physics, 2011, 11, 11919-11919.	4.9	4
209	Response of FSSP-100 and PVM-100A to Small Ice Crystals. Journal of Atmospheric and Oceanic Technology, 2014, 31, 2145-2155.	1.3	4
210	Corrigendum to Aerosol impacts on California winter clouds and precipitation during CalWater 2011: local pollution versus long-range transported dust published in Atmos. Chem. Phys., 14, 81â€“101, 2014. Atmospheric Chemistry and Physics, 2014, 14, 3063-3064.	4.9	4
211	Classification of aerosol population type and cloud condensation nuclei properties in a coastal California littoral environment using an unsupervised cluster model. Atmospheric Chemistry and Physics, 2019, 19, 6931-6947.	4.9	4
212	Modeling impacts of ice-nucleating particles from marine aerosols on mixed-phase orographic clouds during 2015 ACAPEX field campaign. Atmospheric Chemistry and Physics, 2022, 22, 6749-6771.	4.9	4
213	Laboratory studies of ice nucleation by aerosol particles in upper tropospheric conditions. AIP Conference Proceedings, 2000, , .	0.4	3
214	Corrigendum to "Laboratory investigations of the impact of mineral dust aerosol on cold cloud formation" published in Atmos. Chem. Phys., 10, 11955â€“11968, 2010. Atmospheric Chemistry and Physics, 2011, 11, 4025-4025.	4.9	3
215	Biological ice nuclei and the impact of rain on ice nuclei populations. , 2013, , .		2
216	Laboratory measurements of ice nuclei concentrations from ocean water spray. , 2013, , .		2

#	Article	IF	Citations
217	Comments on â€œThe Persistence of Seeding Effects in a Winter Orographic Cloud Seeded with Silver Iodide Burned in Acetoneâ€• Journal of Applied Meteorology and Climatology, 1991, 30, 1376-1380.	1.7	1
218	Hunting the snark: Identifying the organic ice nuclei in soils. , 2013, , .		1
219	Preâ€activation of ice nucleating particles in deposition nucleation mode: Evidence from measurement using a static vacuum water vapor diffusion chamber in Xinjiang, China. Geophysical Research Letters, 0, , .	4.0	1
220	Measurements of ice nuclei at high supersaturations. AIP Conference Proceedings, 2000, , .	0.4	0
221	Investigation of ice nucleation properties of mineral and soil particles. , 2013, , .		0
222	Observations of ice nuclei associated with biomass burning. , 2013, , .		0
223	Evaluating the properties of sea spray aerosols produced in the laboratory: Comparisons with controlled breaking waves. , 2013, , .		0
224	The importance of organic aerosol to CCN concentrations and characteristics at a forested site in Colorado. , 2013, , .		0
225	An Examination of a Continuous Flow Diffusion Chamber's Performance: Implications for Field Measurements of Ice Nuclei. , 2007, , 450-454.		0
226	Isolating and identifying atmospheric ice-nucleating aerosols. , 1996, , 373-376.		0
227	Studies of homogeneous and heterogeneous ice formation by aerosols in upper tropospheric cloud conditions. , 1996, , 876-879.		0
228	Comparisons of cloud chamber and cloud model simulations of ice nucleation by silver iodide. , 1988, , 674-677.		0